

MECHELECIV

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SEAS Charges Up For Solar Car by Barrett Crane

On October 26th and 27th, Dr. Bedewi along with students Ken Kozlowski and Barrett Crane travelled to the Boston Area for a Solor and Electrical Engineering professor, arranged the trip with the Engineering school in the hopes of increasing an understanding of what is needed to build a solar car.

For those who have been studying all semester and haven't heard, the School of Engineering and Applied Science is building a solar car to compete in a seven day race from Texas to Minnesota known as Sunrayce '93. The race is sponsored by the U.S. Department of Energy, General Motors Corporation, and The Society of Automotive Engineers. In order to Enter the race, Universities must submit a proposal to the Department of Energy showing full understanding of the undertaking involved. In building a solar car, DOE then selects what they feel are the "best" or most committed schools to compete in Sunrayce '93. Since only thirty-six schools are selected, Bedewi felt it was necessary to attend the conference. The reasons were twofold. First, attendance by GW students and faculty showed DOE personnel that GW is committed to Sunrayce '93. Second and

most important, useful knowledge was gained in the construction of solar race cars from the conference.

Schools such as MIT, Cornell University, The University of Michigan, The University of Maryland and Temple attended the conference to name just a few. In all, about twenty different schools were present. Since over 100 schools have contacted DOE about the race, GW's presence at the conference may give us the edge needed for consideration to race in Sunrayce '93.

The conference began with Robert Stempel, Chairman and CEO of General Motors Corporation, discussing the feasibility of bringing electric vehicles into the market place. From there the attendees broke up to listen to various subject matter ranging from the electrical to mechanical needs in building a solar car. On the electrical side of things, much was learned over the weekend from battery selection to photovoltaic (solar cell) technologies. Electrical instrumentation was also discussed along with Motorola's presentation on radio communications needs during the race. A crash course in electric motor and motor controller needs completed the electrical design lectures. The Mechanical-minded were flooded with design

lectures for the chassis, steering, suspension and brakes of a solar car. Wheel and tire selection were also covered in detail. The structural lectures focused on composites used in solar car bodies. Most importantly, safety precautions were stressed to all over and over again. The conference certainly covered most topics needed for solar car design. Copies of the Proceedings are available from Dr. Bedewi or Barrett Crane for those interested in the details.

In order to be competitive with other schools, Bedewi wisely decided that solar car design courses for credit need to be offered at GW. With the help of Dean Gilmore and Associate Dean Feil along with support from department Chairs Kiper (CME) and Harrington (EECS), these course offerings will become reality for the spring of 1992. A course for the structural and mechanical design of the car will be offered through the CME department for Juniors and Seniors. Civil engineering students will register for a civil engineering elective while mechanical students will register for a mechanical design course. Both civil and mechanical students will be in the same course though. EECS Juniors and Seniors can register for an electrical design systems course for the car. Those interested in the CME course need to contact Dr. Bedewi 994-6915 (Tuesday and Thursday) in the CME department for

registration and course times. The electrically minded can contact their advisor or Barrett Crane (703) 323-5456 for course information.

In addition to the above courses, a Society of Automotive Engineers chapter is being formed for those who want to work on the car but for some reason can't take the course. This will be opened to all students. Contact Eric Davis (703) 281-3572 or faculty advisor Dr. Bedewi for more information.

With the above steps taken along with help from the Marketing Department in the Business School, DOE approval is expected. These courses will be fun as well as educational so don't hesitate to sign up. Sunrayce '93, here we come!

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Eta Kappa Nu Update

Eta Kappa Nu, the honor society for Electrical Engineering and Computer Science Students, recently had its meeting welcoming new eligible initiates. Those eligible ranked in the top of the Senior and Junior classes.

The teaching surveys for the 1991 semester were discussed. Eta Kappa Nu will be sending a delegate to each

EECS course in the following weeks. This survey will allow students to rate performance of their teacher. Performance is based upon the professor's teaching ability, knowledgeability and availability outside the classroom. Student's will also be allowed to rate a mid-term examinations given by the professor. The surveys will be tallied

by Eta Kappa Nu members. The results of the survey will be published at the end of term.

The current membership will be voting on the initiates this month. Those elected will be initiated November 23rd. An initiation dinner will follow the ceremony.

Congratulations to the new initiates.

Engineering Week Update

Every year during engineers Week, the engineers Council sponsors the engineers Ball. This event is usually held on the last day of engineers Week, which is always a Saturday. This year, The engineers Ball will be held on Saturday, the 22nd of February.

In the past, the events for engineers Week have been spread out throughout the week. Events such as the ASME egg-drop and the ASCE bridge-building contest were held at Tompkins Hall. This year, we would like to make engineers Week to be out in the open, so all events will be held out on the Quad. All events sponsored by organizations will be held on Saturday, the 22nd of February, and we will be inviting other engineering schools in the Consortium to compete in our events.

The main reason why we chose to have the engineers Ball on Saturday the 22nd is because it would serve as a grand finale to a week of events. We chose to not have it on Friday the 21st, because if people were out all night partying, they would find it very difficult to attend the events on Saturday.

The engineers Ball will be held this year at the Mayflower hotel. Tickets will be limited and they will be available on a first-come, first-serve basis. Because it will be held at the Mayflower, the ticket prices will be a little more expensive they were last year. The tickets will be approximately \$8-10 per person. If there are any suggestions on how ever can raise more money so that the ticket prices will be lower, please contact Sheryl at (202) 676-7422.

Also, all engineering organizations under the engineers Council must submit a written proposal of what type of event they would like to sponsor during engineers Week, and how much money they will need from the engineers Council to hold the event. Don't forget... these are due November 5th at the next EC meeting!

Society of Women Engineering Events

By Shelly Ritondo and Hilary Holz

What takes place two blocks from the Metro, is attended by more women than any of your engineering classes, and happens the first Wednesday of every month? SWE meetings, of course! SWE, the Society of Women Engineers, is a coed organization dedicated to furthering the role of women in engineering.

The regular monthly meeting... held at nine p.m. the first Wednesday of each month in the conference room of the EE&CS Department (Academic Center T640), is a forum for planning events and activities. It is also a good way to meet and socialize with women engineers (guys take note!) in order to make the evening meetings convenient for all to attend, escort service will be provided and children are welcome.

Besides these general meetings, SWE will sponsor an event about once a month. Upcoming events include a fashion show, tentatively scheduled for early December. At the next meeting, we will form committees and share ideas about what to do for the Spring 1992 Engineers Week. All are invited to attend and encouraged to bring suggestions.

Come to the next meeting, on November 6th, and see Emily Engineer climb the corporate ladder.

MECHELECIV Staff

Bradford Crane.....Editor
Kara Morley.....Staff
Steve Wilson.....Staff
Matt Distel.....Staff

Anyone interested in working for the
MECHELECIV call Bradford Crane at
(703) 323-5456

Tau Beta Pi Peer Tutoring

Tau Beta Pi is offering free peer advising for engineering students. The peer advisors are members of the Tau Beta Pi national engineering honor society. The peer advisors are here to help you with any concerns you may have about your education. This includes courses, professors, Consortium study, registration, cooperative education or other concerns. Our main purpose is to help our fellows students achieve the most out of their education.

The advising will take place at the Davis-Hodgkins House (D-H House) at the corner of 22nd and G street. The hours will be from 9 a.m. to 6 p.m. Monday to Friday starting on November 1 and ending on November 15. It is possible that the D-H House will be under construction at this time; if so, there will be notices posted in Tompkins Hall to announce the change.

There will be two advisors at all times specified above in the D-H House. If you wish to speak to an advisor with a certain major, you can either go to the D-H House and make an appointment or you can call Roderick Gee at (703) 528-3174 or Steve Crain at (202) 994-9713. You can refer any questions about the peer advising to Roderick or Steve at the same numbers.

**Mechanical, Civil, And Electrical
Engineering Students Interested
In**

SOLAR CAR DESIGN

**Meeting on November 6 at 9:00 p.m.
CMEE Conference Room on the
7th Floor Academic Center**

**Registration For Solar Car Design Courses
Will Be Discussed**

Trip to Chalk Point Generating Station

On October 25th, Professor Goulard took about 30 students to the Chalk Point Generating Station. The station is located on the Patuxent River at Swanson Creek in Prince George's County, Maryland. The station occupies 1,160 acres of land, of which only 60 acres is actually used for the power plant. The rest of the land is used for an urban wildlife sanctuary for environmental reasons. The Chalk Point Generating Station is not only the largest generating station in Maryland, but it is also the largest power plant on the East Coast.

The Chalk Point Generating Station has four separate units. Units 1 & 2 are coal-fired, while units 3 & 4 are oil-fired and natural gas-fired. In just one day, units 1 & 2 burn 6,400 tons of coal, and units 3 & 4 burn 50,000 barrels of oil or 271,200 Deketherms of natural gas. Unit 3 burns 2.0% sulfur fuel, while unit 4 must burn 0.7% sulfur fuel. The reason for this is because unit 4 was built in 1981, after the 1970 Clean Air Act.

Students went from classes ME 131, Thermodynamics, and ME 149, Thermal Systems Design. There were also two or three graduate level students who attended.

All Interested In Hearing
About Engineering In
Medicine Come to the

IEEE Pre-Med Society

Come to the Next Meeting

*There will be a speaker at
6:00 p.m. after the meeting*

Upcoming Events:

Eta Kappa Nu NSPE

Thurs., Nov. 7 - General Meeting

IEEE

Tues., Nov. 12 - General Meeting - 9:00 p.m.
Contact Wael El-Sharif for location

Thurs., Nov. 14 - Pre-Med Society meeting - 5:30 in
EECS conference room

Eta Kappa Nu

Thurs., Nov. 14 - MANDATORY Meeting - 9:00 p.m.
in EECS Conference room

PUZZLE OF THE WEEK: THEME- PHYSICS AND UNITS OF MEASUREMENT

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M	S	E	M	A	G	N	E	T	I	C	G	N	E	P
C	E	R	E	S	I	S	T	E	N	C	E	P	O	A
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A	I	N	C	H	E	L	E	C	T	R	O	N	V	

36 WORDS WERE INTENTIONALLY PLACED IN THIS PUZZLE.
CAN YOU FIND ANY MORE- THEY MUST DEAL WITH THE THEME!